

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method of transforming a crystal structure of a Group XIII nitride comprising:

~~a step of generating an aerosol of a starting material powder composed of comprising~~
particles of a Group XIII nitride ~~of~~ having a hexagonal crystal structure ~~in and~~ a carrier gas;
and

~~a step of~~ blowing the aerosol onto a substrate in a depressurized film deposition chamber to make an impact force of the particles at collision with the substrate of 4 GPa or greater, thereby transforming the crystal structure of at least a portion of the Group XIII nitride particles colliding with the substrate to a cubic crystal structure.

2. (Currently Amended) A method of transforming the crystal structure of a Group XIII nitride according to claim 1, wherein the impact force of the particles at collision with the substrate is made to be 4 GPa or greater by blowing the aerosol so as to make a particle velocity 300 m/s or greater.

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (New) A method of transforming the crystal structure of a Group XIII nitride according to claim 1, wherein the impact force of the particles at collision with the substrate is not less than 4 GPa and not greater than 9 GPa.

7. (New) A method of transforming the crystal structure of a Group XIII nitride according to claim 1, wherein Group XIII nitride particles transformed to a cubic crystal structure are intermixed with Group XIII nitride particles retaining a hexagonal crystal structure.

8. (New) A method of transforming the crystal structure of a Group XIII nitride according to claim 1, wherein at least a portion of the Group XIII nitride particles having a cubic crystal structure adhere to the substrate to form a film thereon.

9. (New) A method of transforming the crystal structure of a Group XIII nitride according to claim 8, wherein the Vickers hardness of the film measured at a load of 0.4903 N is 900-1300 HV.

10. (New) A method of transforming the crystal structure of a Group XIII nitride according to claim 1, wherein the film deposition chamber is depressurized by gas evacuation to maintain a degree of vacuum of 200-8000 Pa during the blowing of the aerosol onto the substrate.

11. (New) A method of transforming the crystal structure of a Group XIII nitride according to claim 1, wherein the Group XIII nitride is selected from the group consisting of aluminum nitride, gallium nitride, and indium nitride.

12. (New) A method of transforming the crystal structure of a Group XIII nitride according to claim 1, wherein the Group XIII nitride particles have a diameter of 0.1 μm - 0.5 μm .

13. (New) A method of transforming the crystal structure of a Group XIII nitride according to claim 1, wherein the carrier gas is helium.

14. (New) A method of transforming the crystal structure of a Group XIII nitride according to claim 1, wherein the substrate is a glass substrate having a thickness of 0.2 mm - 10 mm.